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Smart and secure borders through automated border control systems in the EU? The views of political stakeholders in the Member States

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ABSTRACT

The European Commission launched the "Smart Borders" policy process in 2011 to enhance border security in the European Union (EU) using technologisation and harmonisation. This includes the use of automated border control (ABC) systems. The Member States crucially shape the process, weighing security technologies and costs, privacy and rights, and further institutional choices. We examine the views of political stakeholders in four Member States by conducting a systematic empirical and comparative study unprecedented in the existing, political-theory-inspired research. In our Q methodological experiments, political stakeholders in Finland, Romania, Spain and the UK rank-ordered a sample of statements on Smart Borders, ABC and harmonisation. The factor analysis of the results yielded three main views: the first criticising ABC as a security technology, the second welcoming the security gains of automation and the third opposing harmonised border control. While impeding harmonisation, the results offer a consensus facilitating common policy.

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Introduction

Border security has become a salient policy issue across Europe. The unexpected influx of "irregular" migrants into several European Union (EU) Member States from the neighbouring regions since 2015 adds to the security concerns related to unauthorised overstays, cross-border terrorism and crime. At the same time, border-crossings in and out of the EU are increasing and may reach 887 million by 2025 (European Commission 2016a, p. 2), while the border control resources cannot keep pace. These trends drive the technologisation and digitalisation of border security. In addition to GPS and satellite-assisted surveillance of "pre-frontier" areas, at the border technologisation includes the use of passport readers, biometrics for identity verification, automated processes and monitoring of flows of people through automated border control (ABC). This shift underpins the ongoing debate on new border control policies, border-crossing practices and more widely the

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role of the security industry in Europe (Vaughan-Williams 2015, pp. 21–28). As a result, border control has evolved from "narrow" protection of territory by the border guard to a complex high-technology process, leading to a wider concept of border security including large-scale data management in cyberspace (Heiskanen 2014, pp. 69–70).

Meanwhile, the policy debate on border control in Europe features the effects of differentiated integration, whereby EU-level harmonisation efforts coexist with different views among the Member States (see Leruth 2015). Twenty-two out of 28 EU Member States belong to the Schengen area. They follow the Schengen Borders Code, which has abolished internal border controls and introduced co-operation on external borders and visas. While the Schengen Members have granted the Frontex agency certain supranational powers to co-ordinate the technical standards of border control, these states continue to have national policies (Boulanin and Bellais 2014, pp. 235–236). At the beginning of 2016, several Schengen Members started to re-establish border controls in response to immigration-related threat perceptions. By eroding trust and common identity, these unilateral decisions may eventually dissolve the security community upon which the Schengen area stands (Alkopher and Blanc 2016).

Harmonisation, therefore, hinges on the decisions of Member States. A key process in this is the "Smart Borders" policy the European Commission introduced in 2011. It seeks to better secure the Union's external borders and streamline border-crossing by relying increasingly on automated information sharing and self-service. This includes the legislative proposal of April 2016 on a common entry/exit system (EES) for third-country nationals and corresponding amendments to the Schengen Borders Code, and concomitant suggestions for further technologisation (European Commission 2016a, 2016b). The November 2016 proposal for a European Travel Information and Authorisation System (ETIAS) externalises border control towards "policing at a distance" (Skleparis 2016, p. 107), by subjecting visa-free passengers to digitalised advance checks for security and irregular migration. Further proposals include a Passenger Name Record Directive, enhanced security features in travel documents, more systematic checks on EU external borders and enhancement of the Schengen Information System (European Commission 2016c). At issue is a contentious mixture of policy issues involving security, costs, mobility, fundamental rights and privacy (e.g. Bigo et al. 2012).

Here we address the complex nexus of ABC technologies; the privacy, rights and legal issues involved; and further institutional choices as subjectively perceived by Member States' political stakeholders. This is a novel line of enquiry in three major respects. First, it responds to Hills' (2006, p. 67) call a decade ago for more empirical evidence: "Border security is an empirical manifestation of a state's adaptation into its political environment", while "functional security" is "neglected by the academy", and thus research on the empirical dimensions of border security is needed to "rebalance the debate". Second, while many studies concentrate on EU-level policies, we consider the Member States, as yet little addressed in the literature. They share the competence with the Union in border control, participate in the Smart Borders policy process, and develop and implement policies at the national level. Member States also produce competing political imperatives on actual EU-level policies. For example, a recent single-case study highlights how national-level securitisation of border-crossing risks illiberal practices at the EU borders (Skleparis 2016).

Third, while critical border studies often evince a political theory-informed critique of policies (see next section), we empower some of the actors "in the field", examining

and comparing the subjective views of political stakeholders vis-à-vis ABC in four EU Member States: Finland, Romania, Spain and the UK. We focus mostly on Members of Parliament, because national parliaments debate the EU initiatives, report back to the EU institutions and make the respective national budget allocations. Our effort is broadly informed by the "practice turn" in critical security and border studies in concentrating on a group of actors steering the development and deployment of security technologies. This helps us to focus on the meaning of policies "as understood by the actors in these fields", and to study these security practices through their "shared understandings and disagreements" which "make up border security" (Côté-Boucher et al. 2014, pp. 197–198).

To gain an empirical insight into the shared views and contentions of Member States' political stakeholders, we apply Q methodology, thereby enabling participants to *question* the security technologies from their own subjective standpoints. Importantly this affords an empirically grounded idea of the political concerns and incentives regarding the technologisation and harmonisation of border security to complement political theory-informed critique. We understand the security technologies scrutinised as results of interaction among actors with different views. Because the technologies function on behalf of the user governments, the Member States' stakeholders can assign normative and political considerations to them that in turn deserve systematic empirical research (see Amicelle et al. 2015, p. 297, Valkenburg and van der Ploeg 2015, pp. 327–329). Hence our contribution is driven less by theory and more by methodology (see Côté-Boucher et al. 2014), prioritising the empirical evidence in the subjective views of political stakeholders.

We therefore ask the following: (1) What views do political stakeholders in Finland, Romania, Spain and the UK have on the development of ABC systems? (2) Can we identify any common ground among these views on which to build European border control policies? We first introduce our methodological choices and then outline our results featuring three different views on ABC and the common ground among them, along with policy recommendations based on the consensus and the wider implications for European border control policies.

Research design: the Q methodological approach to views of political stakeholders

Case study countries

Our case study countries Finland, Romania, Spain and the UK display a wide variation of border challenges and policies in terms of membership of the Schengen agreement, institutionalisation of ABC and positions on the Smart Borders process. While a four-country comparison is not representative of all EU Member States, it illustrates the potential range of views.

Regarding border challenges, all our cases have significant external entry points to the EU (Frontex 2013). Finland and Romania have much traversed land borders. There is occasional congestion on the Finnish–Russian border, likewise on the border between Romania and Moldavia, and also on that with Ukraine. In the UK and Spain, the major external entry points to the EU are the airports, namely London Heathrow, London Gatwick, Manchester and Madrid Barajas. The Spanish autonomous communities of Ceuta and Melilla in North Africa are also major gateways to the EU. The southern

borders of the EU, alongside the borders with the Middle East, manifest a complex intersection of border security issues ranging from immigration and terrorism to fundamental rights (Del Sarto and Steindler 2015).

Regarding policy, these countries were not chosen to model the number of incoming asylum seekers, which rose dramatically in 2015 (Frontex 2015), but rather the variation in the development of border control policies including ABC. The UK has a Schengen opt-out, and will not participate in the Smart Borders policies. In June 2016, it also voted to exit the EU. The country is nevertheless interesting, being perhaps the most institutionalised case of European ABC use, with automated systems at most airports and plans to acquire electronic gates for seaports and railway stations. Finland, a Schengen member, considers Smart Borders to enable more extensive ABC use, which could expedite the Fenno-Russian border traffic, which since 2014 has suffered from the sanctions imposed by the EU and Russia. Finland utilises ABC systems at the main traffic hubs at air borders, and some land and sea borders. Spain and Romania have endorsed the Smart Borders EES, which would help them to detect possible overstays. Spain, a Schengen member, has recently expanded ABC to cover the most important airports, along with one land border and one seaport. Romania is only pursuing Schengen membership and plans to pilot ABC systems at the land border with Serbia and at Bucharest Airport.

Modelling the ABC debate

We modelled the ABC debate on the all-European level by first exhaustively reviewing the existing literature and policy documents. We then formatted the emerging views into 230 short statements. To discern the crucial technological approaches in the ABC debate, we drew on guideline documents (e.g. those produced by Frontex and the International Civil Aviation Organisation) and academic articles mostly discussing biometric authentication (e.g. Kwon and Moon 2008, Jain and Kumar 2012). We extracted EU-level policy preferences from publications by the European Commission, the European Data Protection Supervisor and the Biometric European Stakeholders Network, among others. To comprehend the public political debate, we used Smart Borders evaluations (e.g. Bigo et al. 2012, Hayes and Vermeulen 2012) and consulted national and EU newspaper articles along with press releases by various European Parliament groups and independent advocacy groups.

For the wider expert debate on border policy, we reviewed the existing research, which often draws upon political theory and is quite critical of ABC and related technologies. For example, some authors were alarmed by modern states' proactive use of risk management technologies (Ceyhan 2008, Skleparis 2016). These observers associate such technologies with securitisation, that is, processes in which issues are brought under the security logic of emergency measures, delimiting public debate and involvement (Lodge 2004, Muller 2011). Scholars criticise the securitisation of migration, especially in the post-9/11 context (Alkopher and Blanc 2016), and the ensuing entanglement of security and immigration policies (Muller 2004, Dijstelbloem et al. 2011), potentially undermining, for example, asylum seekers' rights (Palm 2013). The research also identifies threats to users' privacy due to biometric identification and European databases (Broeders 2007, Harel 2009, van der Ploeg 2009, Friedewald et al. 2010, Mordini and Rebera 2012).

We divided this debate into three themes. The first, "technological options" (A), includes statements on ABC technology, including its costs. The second theme,

Table 1. The heuristic model of the policy debate.

	Technological possibilities (A)	Privacy, rights and legal issues (B)	Institutional processes (C)
Representative (a)	Aa	Ba	Ca
Normative (b)	Ab	Bb	Cb
Policy recommendation (c)	Ac	Bc	Cc

"privacy, rights and legal issues" (B), includes statements on protecting privacy, human rights and the lawful use of ABC. The third theme, "institutional processes" (C), concerns the wider institutional choices involved and some political economy issues. Each of the themes contained three types of statements: representative (as in declarative, describing the *status quo*) (a), explicitly normative (b) and a policy recommendation (c). We cross-tabulated the debate themes and statement types to create a heuristic model of the policy debate (Table 1). The purpose of the model is practical: to help locate as diverse statements as possible and select from these a balanced, relevant sample (see Brown 1986). We placed the 230 statements into the cells of the model (Aa, Ab, etc.) and then selected an equal number of statements from each cell. To establish which statements were of the greatest practical relevance, we tested a sample of 43 statements empirically with 19 Finnish political stakeholders, who rank-ordered the statements and commented on them in interviews (Lehtonen and Aalto 2015). We then fine-tuned the statements and reduced their number to 34 in order to "lighten the cognitive burden" of the participants (see Dryzek et al. 1989, p. 484). The complete Q sample is listed in the Appendix, with indications as to which cell of the model each statement belongs.

Participants

The importance of the views of political stakeholders on ABC stems from the increasing salience of border security. While the EU level features policy co-ordination efforts, decisions to commission and introduce ABC systems are taken by national governments and their agencies. National parliaments discuss both EU-level and national policies and allocate the funds; decisions regarding ABC and Smart Borders are most often deliberated in committees on justice and home affairs. We selected the participants, primarily Members of Parliament, according to their committee memberships, political affiliations and backgrounds. The aim was to include well-informed participants able to react to our statements and representing the most important political parties in the case countries. We included 44 participants, which suits the small-N Q methodology well: it is essential to include representatives of all pertinent categories of perspectives, instead of a quantitatively representative sample of individuals (Dryzek et al. 1989). Typically Q studies feature 20–40 carefully selected participants. Our study covered the political spectrum and current trends such as the rise of the right-wing and populist, immigration and EU-critical parties in the UK and Finland[1] (Auel and Raunio 2014, Leruth 2015).

Twenty of the 44 participants were members of national parliaments (MPs), one senator and three Members of the European Parliament (MEPs). Twelve were senior officials of their respective political parties and involved in committee work on issues relevant to the study. The remaining eight were non-partisan, high-level experts in border control, data protection, technology policy and public as well as immigration law contributing

to the debate. In the case of the UK, we included three experts working for think tanks considered to be Conservative and Unionist Party-inclined, although officially non-partisan, because the Conservative MPs and political staff declined to participate.

Altogether 18 political parties were represented through their elected and employed agents, covering the major parties in each case country. Regarding nationality, there were 16 participants from Finland, 10 from the UK, 8 from Romania and 7 from Spain. As control cases vis-à-vis the conservative, Eurosceptic parties and correspondingly the European Parliament group the Greens/the European Free Alliance to monitor standpoints against data collection and Smart Borders, we further included one Dutch, one Danish and one Latvian participant (Table 2).

The Q sorting experiments

All participating political stakeholders conducted individual, online Q sorting experiments, where they ranked the final 34 statements of the Q sample. The experiments took place between February and November 2014, when the Member States debated the Commission's 2011 Smart Borders proposal, as an input into the Commission's second Smart Borders package in 2016 and before the vote in the UK on leaving the Union. With this timeline, the results of the experiments also address some of the problems and delays in the Smart Borders process.

The participants accessed the password-protected Q sorting platform and received instructions through the FlashQ programme, which then saved the experiment data on a server. The participants sorted the statements visualised as cards according to their agreement or disagreement, relying on their current, subjective views, which would presumably be implemented in their advisory and/or decision-making roles. They made a primary sort into three categories, "agree", "neutral" and "disagree", then a detailed sort, placing each statement in an empty slot on the forced "normal distribution" grid ranging from −4 through 0 to 4. In this way, we modelled the prioritisations they would normally choose in the relevant policy issues. We verified the validity of the data by requesting participants to explain in writing why they had placed statements in the extreme columns. This ensured that the participants understood the statements similarly and sorted them according to their opinions, which guarantees the inter-comparability and reliability of the Q sorts.

Analysis of the data

We analysed the Q sort data with the PQ Method programme to identify the most distinguishable and interpretable factors or views on ABC. Having experimented with various combinations of factor extraction and rotation methods, we chose a three-factor solution produced with principal component analysis and judgemental rotation. The factors account altogether for a satisfactory 50% of the variation among the Q sorts. The remaining Q sort data were too fragmented, with views which were too idiosyncratic to yield factors amenable to reliable interpretation.

Two indicators are decisive in Q methodological data: the loading of a participant on each factor and the factor Q scores. The participants' loadings indicate the extent to which they agree with a factor: a loading of 1.00 would signify total agreement and

Table 2. Participants and their factor loadings, significant loadings flagged with an X.

Participant			Loading on factors			
Natl.	Position	Party/organisation	Party definition	F1	F2	F3
1 UK	Political staff	Liberal Democrats	R	0.58X	0.21	0.24
2 ES	MP	Socialist Workers' Party	L	0.65X	0.35	0.26
3 ES	MP	United Left	L	0.50X	0.06	0.28
4 ES	MP	People's Party	R	0.29	0.63X	0.37
5 UK	Political staff	Labour	L	0.79X	−0.12	0.22
6 RO	MP	Dem. All. of Hungarians	Min.	0.31	0.46X	0.26
7 ES	MP	People's Party	R	0.11	0.69X	0.14
8 UK	MP	Labour	L	−0.06	0.20	−0.22
9 UK	Expert	National Audit Office	–	0.19	0.51X	0.15
10 RO	Political staff	Social Democratic Party	L	0.12	0.69X	0.32
11 ES	MP	People's Party	R	0.26	0.59X	0.19
12 ES	MP	Socialist Workers' Party	L	0.67X	0.34	−0.02
13 FI	Expert	University	–	0.29	0.74X	0.19
14 FI	Expert	Non-Governmental Org.	–	0.62X	−0.09	0.21
15 FI	Expert	Government Agency	–	0.68X	0.23	0.10
16 FI	Political staff	Social Democratic Party	L	0.66X	0.42	−0.02
17 FI	MP	Left Alliance	L	0.77X	−0.23	−0.15
18 FI	Expert	University	–	0.88X	−0.15	−0.01
19 FI	Political staff	Centre Party	C	0.21	0.58	0.51
20 FI	MP	Centre Party	C	0.08	0.61X	−0.14
21 FI	MP	Social Democratic Party	L	0.76X	−0.08	0.05
22 FI	Political staff	National Coalition Party	R	−0.04	0.48X	0.33
23 FI	MP	Left Alliance	L	0.64X	0.32	0.01
24 FI	MP	National Coalition Party	R	−0.24	0.10	0.40
25 FI	Political staff	The Finns Party	RR/Anti-EU	0.08	0.05	0.44X
26 FI	MP	The Greens	Env./C	0.77X	−0.12	0.01
27 RO	MP	Social Democratic Party	L	−0.04	0.76X	0.17
28 RO	MEP	National Liberal Party	R	0.31	0.45X	0.26
29 RO	MP	Social Democratic Party	L	0.23	0.68X	0.16
30 FI	MP	The Finns Party	RR/Anti-EU	0.12	0.16	0.79X
31 RO	MP	Social Democratic Party	L	0.59X	0.03	0.21
32 UK	MEP	UK Independence Party	RR/Anti-EU	0.11	0.65X	0.25
33 NL	Political staff	Reformed Political Party	R	0.22	0.39	0.45X
34 FI	MP	The Finns Party	RR/Anti-EU	−0.44	0.53	−0.09
35 UK	MEP	UK Independence Party	RR/Anti-EU	0.00	−0.38	0.60X
36 RO	Political staff	New Republic Party	R	−0.27	0.57	0.56
37 RO	Senator	National Liberal Party	R	0.43	0.49X	0.16
38 UK	Expert	Think tank	(R)	0.55X	−0.08	0.41
39 LV	Political staff	Greens/EFA	Env.	0.88X	−0.19	−0.06
40 ES	Political staff	Socialist Workers' Party	L	0.70X	−0.03	0.00
41 UK	MP	Liberal Democrats	R	0.50X	0.14	0.40
42 UK	Expert	Think tank	(R)	0.25	0.40	0.15
43 DK	Political staff	Greens/EFA	Env.	0.76X	0.00	0.08
44 UK	Expert	Think tank	(R)	0.44	0.27	0.65
Explains the variance among Q sorts at				24%	17%	9%

Notes: Party definitions: centre (C), environmental (Env.), Eurosceptic (Anti-EU), left (L), minority rights (Min.), radical right (RR), right (R). Sources of the definitions: Brack and Startin (2015), Halikiopoulou and Vasilopoulou (2014), Hloušek and Kopeček (2010), Rovny (2014), Stan (2013). The abbreviated nationalities: British, UK; Danish, DK; Dutch, NL; Finnish, FI; Latvian, LV; Romanian, RO; Spanish, ES.

−1.00 absolute disagreement. The minimum value of a statistically significant loading at the $p < .01$ level was set at 0.44 using Brown's (1986, p. 64) formula. Participants' factor loadings are listed in Table 2, with the significant ones marked X. To keep the views the factors expressed as distinct as possible, participants loading significantly on multiple factors (participants 19, 34, 36 and 44) were excluded from the definition of the factors, along with participants 8, 24 and 42 loading less than 0.44 on all factors.

The factor Q scores represent the "ideal values" of an imaginary respondent totally agreeing with the factor, calculated from the defining, significantly loading Q sorts. They range here from −4 to 4, the equivalent spectrum along which the participants sorted the statements. The Q scores indicate (dis)similarities between factors and help to create a narrative of the content of each factor, a "factor view" shared by the defining participants. Extremely high and low scores, along with the difference or similarity of scores between factors, merit attention (see Appendix). In addition to the Q scores, we used participants' written comments in the narrative creation.

Results: three views on ABC

The results of our Q methodological analysis revealed three distinctive factor views, illustrated in terms of the factor scores and participants' comments (P1–P44, see Table 2).

First view: privacy rights must be safeguarded

The first view explains 24% of the variation among Q sorts, gaining the support of 19 participants. View 1 was subscribed to by all the case nationalities and defined by social democrat, left-wing, environmental and liberal politicians and party staff, likewise by law and data protection-oriented experts.

Participants sharing View 1 deemed the decisions regarding ABC political in nature, as they have implications for fundamental rights. This view was opposed to letting experts and scientists steer the automation of border control. It called for the harmonisation of EU legislation and clear, unified policies on ABC based on the notion of the Union having one external border. EU refugee policy was criticised (P12), with a call to incorporate the just treatment of asylum seekers into the design of the forthcoming ABC systems and databases; this referred to the risk profiling used in ABC, which, according to View 1, might lead to discrimination.

The goal of ABC for the first view is "to increase the knowledge that states have about people travelling" (P5), that is, the "intellectual expansion of the central state" (P1), not merely to facilitate travel. The view asserts that ensuring security is compatible with the individual's right to privacy (P1, P37 and P39). It calls for the personal right not to disclose intimate, biometric data even to the authorities. Participants strongly opposed Statement 1, claiming that honest people should have no reason to object to their biometrics being collected and used in border control (P2, P12 and P31). The statement reminded Spanish Participant 2 of the dictatorial and authoritarian argumentation of the Franco administration, while Romanian Participant 31 was wary of biometric data becoming "a tool for the Government against its citizens". Fingerprinting third-country nationals at border-crossings for Smart Borders also appeared alarming to those subscribing to View 1; it compromises the presumption of innocence. Supporters of this view stressed that there was more than enough proof of data misuse from the past. Participant 41 made a case for everyone having the right to "disappear and reboot":

> Even the most secure and compartmentalised data *will* be shared eventually, because of natural curiosity or greed or paranoia […] it should therefore as a matter of principle be as skeletal as is compatible with achieving the published primary aims of its collection.

Strict data usage limitations should apply, allowing data collected by border control to be used for that purpose only; the first view is very wary of "surveillance creeps", that is, the wider use of a technology or a system beyond its original scope potentially encroaching on privacy.[2] Law enforcement authorities in the EU should accordingly not have access to border control databases, not even to combat terrorism. This goes against the April 2016 Smart Borders proposal, which would allow the access even in the case of third-country nationals (European Commission 2016a, p. 11). The "different" legal systems of EU Member States would not guarantee the exclusive legitimate use of the data (P31), as "corruption, low or no accountability for wrongdoing and discrimination prevail among the authorities of many Member States" (P14). For View 1, this gives reason to be critical of an EU-wide biometric data system. Further, ABC and Smart Borders represent a danger of increased, unjustified surveillance of EU citizens. The participants considered it very tempting for Member States to use the border control data for other purposes (P26, P39 and P41). A loophole in the supervisory arrangements of only one state or border agency in the EU could have dire consequences (P41). View 1 moreover involved proportionality: "since we don't fingerprint everyone for fighting crime, the principle of proportionality should also be applied to border controls" (P39). Accordingly, hidden controls to catch potential aggressors were rejected. Participant 41 pointed out the volatility of the concept of terrorism:

> European ideas on what terrorism is have changed: the Hitler bomb plot and the French resistance being heroic, and the tube suicide bombers being cowardly. Some EU countries give sanctuary to those that other states seek to extradite for terrorism. Fashions in these things change, but the data remains on record.

Second view: ABC will enhance security and advance European integration

The second most explanatory view, at 17% and with 13 participants loading significantly on it, was supported mainly by right-wing and centre-right political parties in all our case countries, although the Romanian participants supported the view more widely.

For the second view, border security was paramount and could be enhanced by automating border control. The EU should thus strive to be at the forefront in acquiring the most modern, efficient and safest technological solutions in border control. The security attributes of ABC systems were believed to override other considerations, such as the speeding up of border-crossing, as the EU was seen to "attract illegal cross border threats and other sources of instability from outside the Union" (P10). This is why View 2 demands a risk-based approach in border control, referring to "directing border guards at those deemed the riskiest […] not spending time checking the passports of very low-risk passengers" (P9). Automated risk profiling was considered an advantage of ABC, especially given the "sheer volumes of people travelling, and projections of greater numbers in the future" (P9).

The second view accepted the use of travellers' biometrics far more extensively than the first view. Advocating EU-wide identification databases in ABC and deeming the verification of passengers' identity insufficient, View 2 was also in favour of using these databases in solving serious crimes and combatting terrorism by sharing their information with law enforcement authorities. The use of biometrics in ABC and Smart Borders was encouraged: this view included no notion of potentially unjustified surveillance of EU citizens or

surveillance creeps. Nevertheless, it calls for a "detailed study on which data should be used and for what purposes" (P11), along with demanding transparency by condemning hidden control of travellers even if it might help to catch potential aggressors. View 2 moreover postulates that while the increased use of biometrics is undertaken in the interests of public safety, immigrants do not constitute an internal security threat to the EU: "immigrants are not criminals and the system does not try to forbid immigration" (P4).

Those subscribing to View 2 support the harmonisation of ABC processes and gates in the EU not only for cost efficiency and security, but also due to their usefulness in the European integration process. They articulated a need to harmonise processes in the EU whenever possible "in order to build a real European Union" (P11), which "needs more federative elements" (P13). The second view welcomed EU legislation on border control as a "logical evolution of further integration in policies, including those referring to common security […] the EU must assume responsibility for further integrated external border control if free movement of EU citizens is to be maintained" (P7). View 2 furthermore deemed ABC a worthwhile investment despite the current difficult European economic situation. The technology might initially be costly, but would offer a safety-enhancing, cost-effective alternative to hiring more border guards to process growing traveller volumes, as Participant 7 explained:

> New investments related to new technologies are always at first considered an unnecessary expense […] it is exactly the opposite. In the long run automated border control technology will allow states not to employ so many personnel at their borders, and be able to specialise in fighting against specific crimes along borders.

One participant furthermore perceived ABC as an opportunity to combat corruption: "It has been demonstrated many times that the border police is corrupt and an automated border would eliminate this risk" (P27).

Third view: Eurosceptics against immigration

Four participants shared View 3, explaining 9% of the variation among Q sorts. They represented the British, Dutch and Finnish far right, Eurosceptic parties, which belonged to the Europe of Freedom and Democracy Group in the European Parliament until its 2014 reform. The third view argues for stricter border control by reason of deeming "constant concerns about increasing immigration" legitimate due to the "social and economic consequences for European society" (P33). Immigration is framed as a soft security threat: "The people of the UK think illegal immigration is the biggest problem in our country, next to open borders, the numbers of people entering the UK and the rising crime directly attributable to non-UK nationals" (P35).

It seems inherent in View 3 that "EU citizens have different rights compared to third-country nationals" (P30), and thus fingerprinting the latter for Smart Borders, for example, is justified for security reasons. Risk profiling in ABC and any consequent potential to discriminate against certain nationalities or ethnicities were not a concern for those subscribing to View 3, nor was the inability of developing countries to produce biometric passports, which might raise suspicion regarding their citizens in the context of ABC. Opposing the surveillance of EU citizens in general, View 3 remarkably, and contrary to the two other views, advocates covert surveillance of passengers at borders to catch potential aggressors. Those who are not "bad guys" should have nothing to fear from

monitoring (P25). In contrast, View 3 also urged transparency on the part of the states in providing travellers with explicit statements on the use of their biometrics (P25).

The current data protection systems in many EU Member States invoked scepticism in View 3 participants; they are not reliable enough for ABC. Biometric identification data are considered inherently unsafe (P35) and the participants mistrust the governments' ability to keep them safe. This view stressed the political and legal implications of ABC and Smart Borders; it wanted to avoid labelling them as technological development. Rather, View 3 wanted to bring privacy questions centre-stage in the ABC debate. "Big Brother is watching", commented Participant 35, continuing: "Where data can be kept, compiled and lost, citizens' right to privacy will be invaded and not properly safeguarded. […] We are free because we are born free, we do not need EU surveillance."

The third view on the whole articulated a reluctance to proceed with ABC. It recognised not only the need to "investigate and use technical solutions where possible", but also the "constant anxiety of many citizens regarding the expanding possibilities of governments to control their lives"; technical systems can be used in the service of humankind, but "as long as human nature doesn't improve, the risks grow with the possibilities" (P33). The supporters of the view considered acquiring ABC technology a worse investment than recruiting more border guards. Harmonising ABC processes and gates was not supported because "top-down approaches do not work very often […] the EU is welcomed to offer a best practice approach" (P30). Instead, each Member State should act at its own sovereign discretion on border control practices. If the EU decided to proceed nonetheless with harmonised ABC, the third view insisted on the Union compensating Member States forced to invest more than others to comply with the standards. Finally, View 3 did favour ABC at land and maritime borders, given the benefits likely to accrue in processing asylum claims at EU's southern borders: "Failing registration of refugees by Southern Member States mainly concerns land and maritime crossings. This puts EU-wide solidarity under high pressure. It would be very helpful that the EU takes its responsibility in developing applications" (P33).

Agreement across the three views

The views converged on five issues represented in the statements in our Q sample. This consensus may serve as a prospective starting point for a politically sustainable automation of border control in the EU, given that participants from different Member States and representing the extreme ends of the political spectrum share it. First, all three views endorsed data minimisation, that is, limiting the collection of personal information to "what is directly relevant and necessary to accomplish a specific purpose" and retaining it "only for as long as it is necessary to fulfil that purpose" (European Data Protection Supervisor 2015). Harvesting, using and storing personal data "presents both a security risk and an erosion of civil liberties" (P1). Our participants stressed assuring travellers, citizens, that their data would only be used for purposes of border control (P3, P9, P29, P31 and P44): people do not automatically consent to the state using their data for other purposes (P38), while "further use of those data would violate civil rights" (P21). Extensive data use was opposed as "collecting more data than is needed will only cloud the picture" (P9); also, "there is little if any proof that more biometrics reduces false negative and positive identification" (P43). Therefore, our three views rejected the use of

multiple biometrics (such as fingerprints, facial images and iris scans) in ABC, even though the security industry is currently developing such solutions. Furthermore, a potential surveillance creep in biometric data use worried the participants; Participant 41 articulated these apprehensions:

> Data leakage and recycling is a constant temptation for any data holder, especially a multi-function body such as a state or the EU. Systems should be designed to minimise the opportunities for temptations to arise. There is no sign that any state has as yet sufficiently built into its constitution, institutions or culture resistance to such "mission creep". There is, however, plenty of evidence that parts of them would actively welcome such a data hoard to mine, and might quite readily connive with third party states to pass data on.

Broeders (2007, p. 87) shares this concern, in particular with an eye to the "unprecedented scale" of data in the European border control databases, which may tempt authorities to extend their use beyond the original purposes.

Second, participants subscribing to all views called for transparent data use: they wanted to inform travellers clearly on how, by whom and why their data would be used. This would guarantee the travellers the means to take action if their data were misused (P31), which would help in achieving citizen support and legitimacy for the ABC systems (P38 and P44). Third, on grounds of legal transparency, the participants supporting the three views called for binding legal instruments and monitoring mechanisms to be set up before creating new EU-wide information technology systems for border control. On this point, Del Sarto and Steindler (2015, pp. 369–370) direct attention to how the EU's increasing competences in security management generate legal and procedural uncertainties and "lack of transparency in terms of competences and accountability".

Fourth, the views require democratic legitimacy from ABC systems, at least at the parliamentary level in each EU Member State, and preferably in civil society. Participants subscribing to View 1 in particular drew attention to parliaments having to approve changes affecting fundamental rights (P3 and P12). "The data should never be used for additional purposes without a democratic political decision" (P43): parliamentary decisions would thus render citizens less vulnerable to potential surveillance creeps associated with ABC. Participants subscribing to View 2 also demanded political decisions and large-scale debate within the civil society on ABC matters (P29), "to find a social agreement or at least a wide understanding among the European population" (P4). Participants sharing View 3 stress the power of decision of each nation state. They reached the same conclusion that ABC requires parliamentary approval.

The final issue agreed upon concerns the accessibility of ABC for disabled people, which is considered a fundamental rights issue: "people with whichever disability have exactly the same rights as the rest of the citizens" (P3). Creating accessible ABC systems was deemed crucial (P2, P11, P25 and P29). "If such a sophisticated system can be created, finding solutions for people with disabilities should be a part of the plan and the goals. The solutions must be found at any cost", commented Participant 2.

Conclusions

The technologisation of security is alongside digitalisation pivotal for the evolving border control policies of the European Commission. Our results reiterate such a policy demand

for ABC in the form of the (centre) right-wing View 2, welcoming ABC as an enhancement in border security as well as a catalyst of European integration. This view conveys a "political and institutional counter-move" to the setbacks witnessed in the Schengen borders policy since 2015–2016 (see Alkopher and Blanc 2016, p. 23) and to the slow progress of the Commission's Smart Borders initiative since its inception in 2011. View 2 agrees with the main thrust of the Commission's border control policies. Supporters of this view would most likely welcome the EES and ETIAS proposals of the Commission (see above). As such, this view builds on the "deep-seated security dynamics" of the Schengen security community and could ultimately help to sustain this community (Alkopher and Blanc 2016, p. 23).

However, our empirical results imply two major challenges for the technology-intensive integration of border control envisaged by the Commission. The critical border studies literature can help to discern these challenges. First, this literature warns against taking technology as an "absolute security provider" (Ceyhan 2008, p. 102). One reason for caution is that emerging technologies may cause uncertainty in society, which "results in a growing gap between citizens, technology and politics", especially with regard to the balance between individual privacy and the "notion of common good" (Friedewald et al. 2010, p. 63). Our results show that some political stakeholders worry about this potentially precarious balance given an opportunity to express their subjective views. View 1 challenged ABC as a security technology, emphasising the political aspects involved in technology development (see, e.g. Amicelle et al. 2015, Valkenburg and van der Ploeg 2015). View 1 moreover reiterated the calls for exercising strict control over access to passengers' biometric data (see, e.g. Harel 2009) and any use of border control data contrary to the rights of asylum seekers (e.g. Muller 2004) or anyone in the name of terrorism prevention (e.g. Lodge 2004).

Second, we found the Eurosceptic and populist far right View 3 critical of harmonisation of European ABC policies, preferring to develop border control on a national basis and appealing to immigration-related threat perceptions. Here some strands in critical border studies help to analyse the potential consequences of such views, warning how any divergence on the part of the Schengen security community from the path of regional integration and solidarity could send Europe back to the traditional power politics of national interests, self-reliance and mistrust (Alkopher and Blanc 2016). Such a return is possible since right-wing Eurosceptic populism has become mainstreamed (Brack and Startin 2015), especially in our cases of the UK (Auel and Raunio 2014) and Finland (Leruth 2015). In this situation, voices such as our third view portray the "people" being justifiably concerned about increasing immigration and surveillance. Indeed, referring to the will of the people is the core strategy of populism (Mény and Surel 2002). It is essential to note our third view trusted neither governments, ABC technologies nor all travellers. Simultaneously it lacked internal coherence. This is typical of populism, characterised by opportunism, which is "more flexible than the value-laden dominant ideologies" (Mény and Surel 2002, p. 18). Hence the third view called for transparency in data use, but encouraged the covert surveillance of passengers.

Although our results confirm the divisions among political stakeholders in the contemporary EU, they simultaneously highlight a potentially significant policy convergence on privacy protection and inclusion. We suggest that the so far tedious European ABC and the Smart Borders policy process could be revitalised and gain wider acceptance among stakeholders and Member States if it were it to build on this convergence. The

convergence emerged in the form of the consensus statements to which our participants reacted consistently and strongly across the views.

First, the political stakeholders we approached agreed on the principle of data minimisation when compiling biometric information from passengers, and on restricting the use of data for other purposes. This urges caution regarding the Commission's April 2016 proposals on using multiple biometrics including both fingerprint and facial image recognition, and for establishing a common biometric matching service open to various authorities including law enforcement (see European Commission 2016b, pp. 8–9, 15). Second, our participants required passengers to be informed transparently and efficiently of the use made of their personal data. This suggests a need to design the passengers' user interface accordingly.

Third, our participants stressed how European-wide ABC requires a legal basis produced through transparent political processes and democratic accountability, also involving discussions and decisions in national parliaments. This conveys a strong message to keep security technology under democratic and public political control to ensure its acceptability to the users. Currently Member States differ significantly on how they nationally debate and respond to the Commission's border control proposals. Euroscepticism may further complicate such political processes across Europe. This support for democratic processes is important: since the conclusion of our experiments in late 2014, many Member States have experienced new waves of immigration and witnessed rampant populism among some political parties questioning the human rights of new border-crossers and the extension of the democratic responsibilities of society towards them.

Fourth, the insistence of our stakeholders for accessibility for disabled passengers as a fundamental right leads us to recommend following universal design principles. Overall, this suggested consensus presupposes that political stakeholders are informed on the development of harmonisation solutions to help them formulate their positions for forthcoming political debates. We expect significant numbers of undecided political stakeholders; informing them would most likely improve the prospects of EU-wide harmonisation.

Regarding wider implications, although our results primarily concern ABC systems and only to some extent the debate on Smart Borders, the degree of dissent we found reminds us of the concerns that emerged in late 2015 regarding the future of the Schengen agreement, when some Member States temporarily re-established border controls to curb uncontrolled immigration. In other words, while Member States disagree on how much EU-level policies can help to solve the "immigration crisis", they also continue to disagree on how much European integration can address the policy dilemmas concerning border security. This may mean that the debates on EU-level border control policies will prove long-lasting.

A further aspect of EU's technologising border control is the ambiguity of the division of labour between institutions and Member States. The EU's "asymmetrical integration" has gradually "shifted responsibility for border management to the European level", thus creating a "mix of policy regimes that combine different institutional configurations" which have both intergovernmental and supranational features (Del Sarto and Steindler 2015, p. 371). Whereas the Commission proposes further technologisation of border control, the European Parliament acts a guardian of the free movement of people and the Schengen principles. The Member States possess the practical expertise in border control, while

the Parliament has influenced the formulation of the Schengen Borders Code, for example, regarding fundamental rights, transparency, non-discrimination and the training of border guards (Huber 2015). Simultaneously, doubts persist on the extent to which the Schengen *acquis* actually affects the practices of border policing at the peripheries of the EU (Hills 2006, p. 85).

Alongside the suggested consensus and wider implications, we must stress the limitations of our research. They arise from the difficulty of reporting coherent further views because our data contained idiosyncratic views not amenable to factor interpretation. This partly fragmented nature of the data may imply that opinions on ABC are still evolving, or the participants were torn between the interests of several groups. Moreover, while trusting that the factors identified and interpreted reflect more general patterns, with our methodology, we cannot establish how widely they are supported in individual Member States or across the EU as a whole. That is the task of survey studies, other large-N studies or comprehensive discourse analyses of national debates. There is also potential for a fourth view, which could well include centre-right or conservative participants: eight of the participants were not included in the definition of any of the views and all but one of them represented such parties. To enquire into this in more detail, future studies should consider how the debate on ABC and border control more widely evolves in the Member States and on the EU level. While we expect the views identified in this study also to emerge in further studies involving other Members States, such studies should also further analyse the potential for border security consensus on the European level, which is only tentatively probed here.

Notes

1. Spain has experienced some left-wing Euroscepticism amidst its economic hardships, while support for the Romanian Eurosceptic Greater Romania Party is marginal (Halikiopoulou and Vasilopoulou 2014, Brack and Startin 2015).
2. We use the wider term "surveillance creep" to account for the expressions "mission creep" and "function creep" when referring to systems, technologies or actors expanding the use of (biometrical) data beyond the original purpose of their collection, potentially eroding privacy rights (see Broeders 2007, Vukov and Sheller 2013).

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Appendix. Statement sample with Q sort values for each factor/view. The position of each statement in the model appears in parentheses. Statements associated with a factor in the analysis appear in bold face. Consensus statements appear in both bold face and italics.

	Statement	F1	F2	F3
1.	Honest people who have nothing to hide have no reason to refuse their biometric data (such as fingerprints) being collected and used in border control (Aa)	**−4**	1	1
2.	It would be best if the passengers did not know where, when and which controls are happening at borders, so that potential attackers would be caught (Ab)	**−2**	**−2**	**3**
3.	Clear statements must be provided to the travellers, on exactly how their biometric data are used, with whom they are shared and for what purpose (Bb)	***3***	***2***	***3***
4.	The EU should not go forward with ABC because it is too expensive, considering the big budget cuts (Cc)	−1	**−3**	0
5.	European border guards desperately need automated technology to be able to manage the increasing passenger flows and to concentrate on checking risky travellers (Aa)	−2	1	−1
6.	Member States that have to invest more than others in implementing the common standards on automated, external border controls should be compensated by the EU (Cc)	0	−1	**2**
7.	The EU should be a pioneer in getting the most modern, most efficient and safest technological solutions in border management (Ac)	0	**2**	1
8.	The ABC processes and gates have to be as similar as possible throughout Europe to make the systems easy and fast to use, and thus cost-efficient (Aa)	1	**2**	**−2**
9.	The problems of corruption and discrimination by border guards can be avoided by automatising border controls (Ab)	−1	**1**	0
10.	People bound to wheelchairs must accept that they will not be able to use ABC gates (Ab)	***−4***	***−4***	***−2***
11.	European companies should be heavily prioritised when ordering gates and software for ABC in the EU (Ac)	−1	0	0
12.	Decisions regarding technical issues, such as biometrics in border control, should be left in the hands of experts and scientists (Ab)	**−3**	−1	−1
13.	In ABC, the decisions to allow entrance are made by profiling groups of people as risky, which may lead to discrimination on grounds of nationality, ethnic origin, skin colour, etc. (Ba)	**3**	0	**−2**
14.	Developing applications also suitable for land and maritime crossings should be a priority in the process of automatising border controls (Ac)	−1	1	**2**
15.	Claiming that citizens have to give up privacy rights for the governments to be able to keep them safe is entirely false and creates an atmosphere where people no longer know their rights (Ba)	1	0	0
16.	In many EU Member States, the data protection systems are currently not reliable enough to be used in ABC (Ca)	1	0	**2**
17.	ABC and Smart Borders may lead to increased, unjustified surveillance of EU citizens, whose movements can easily be recorded and stored in the future (Bb)	**3**	**−3**	1

(*Continued*)

Appendix. Continued.

	Statement	F1	F2	F3
18.	It is enough to verify that the passenger's biometrics match the data in the passport at the border. No EU-wide identification databases are needed (Bb)	1	**−3**	−1
19.	The goal of ABC is simply to make travelling fast and easy (Cb)	**−2**	1	−1
20.	The least possible amount of biometric data can be collected for specified, explicit and legitimate purposes and must not be further used for other purposes (Bc)	***4***	***4***	***2***
21.	Before creating new EU-wide IT systems for border control, binding legal instruments and monitoring mechanisms to control the IT systems must be agreed on (Bc)	***2***	***3***	***3***
22.	When designing ABC systems and databases for the EU, their effects to the just treatment of people seeking international protection at the borders must be considered thoroughly (Bc)	**2**	2	0
23.	Before proceeding with ABC, the plans must have democratic legitimacy in each Member State at least on the Parliament level and preferably among civil society (Bc)	***4***	***3***	***4***
24.	The use of highly effective technologies at parts of the border may trigger the increased use of other, more dangerous illegal entry points (e.g. maritime routes) (Ba)	0	0	1
25.	Collecting biometric information and recording the entry and exit of all third-country nationals crossing the EU's external borders will increase the time most travellers spend at border controls, no matter how much new technologies are able to speed up the process (Ca)	0	−1	−1
26.	ABC and Smart Borders are presented mainly as technological developments, which hides their vast political and legal implications (Ca)	**2**	−1	**4**
27.	The increasing use of biometrics in border control is in the interests of political hardliners who view immigration as a threat to the EU's homeland security (Ca)	1	**−2**	**−3**
28.	Opposing ABC originates from the radical idea to oppose all kinds of governmental surveillance, including border control (Cb)	**−2**	−1	**−3**
29.	It is a contradictory EU policy to get rid of visas and at the same time tighten the border controls with technology (Cb)	0	−2	**−3**
30.	ABC technology will be expensive at first, but in the long run it is a better investment than hiring more border guards (Aa)	−1	**4**	**−2**
31.	Governments of developing countries cannot produce biometric passports, which will bring unjustified suspicion onto their citizens in ABC (Cb)	0	0	**−4**
32.	Gathering fingerprints from third-country nationals at border-crossings makes travellers suspects, which threatens the democratic presumption of innocence (Bb)	**2**	−2	**−4**
33.	EU laws should be avoided in border control because they represent EU federalisation (Cc)	**−3**	**−4**	0
34.	Law enforcement authorities in EU Member States must be able to access all existing and new biometric EU databases used in border control, in order to solve serious crimes and combat terrorism (Cc)	**−3**	**3**	**1**